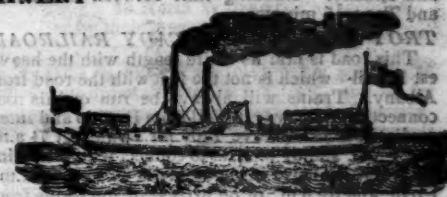
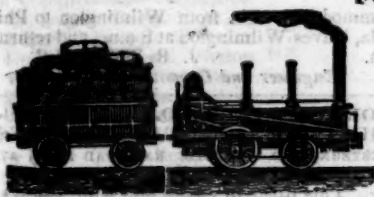


# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY  
AND MINES.

ESTABLISHED 1831.



PUBLISHED WEEKLY, AT No. 105 CHESTNUT STREET, PHILADELPHIA, AT FIVE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. III, No. 15]

SATURDAY, APRIL 10, 1847.

[WHOLE No. 564, Vol. XX.

## AMERICAN RAILROAD JOURNAL.

OFFICE AT THE FRANKLIN HOUSE,  
105 Chestnut Street,  
PHILADELPHIA, PA.

This is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

TERMS.—Five Dollars a year, in advance.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

## BOSTON AND PROVIDENCE RAILROAD.

Passenger Notice. Summer Arrangement. On and after Monday, Sept. 28, 1846, the Passenger Trains will run as follows:

For New York—Night Line, via Stonington. Leaves Boston every day, but Sunday, at 5 p.m.

Accommodation Trains, leave Boston at 7½ a.m. and 3½ p.m., and Providence at 8 a.m. and 3 p.m.

Dedham trains, leave Boston at 9 a.m.; 3 p.m., 5½ p.m., and 10½ p.m. Leave Dedham at 8 a.m. and 4½ and 9 p.m.

Stoughton trains, leave Boston at 11½ a.m. and 4-10 p.m. Leave Stoughton at 8 a.m. and 2½ p.m.

All baggage at the risk of the owners thereof.  
31 ly W. RAYMOND LEE, Sup't.

## BRANCH RAILROAD AND STAGES CONNECTING WITH THE BOSTON AND PROVIDENCE RAILROAD.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford, and Fall River cars run in connection with the accommodation trains.

## PHILADELPHIA AND READING RAILROAD.—Passenger Train Arrangement for 1847.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Fares.	Miles.	No. 1.	No. 2.
Between Phila. and Pottsville, 92		\$3.50 and	\$3.00
" " Reading, 58		2.25 and	1.90
" " Pottsville, 34		1.40 and	1.20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets.

## LEXINGTON AND OHIO RAILROAD.

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m.; and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1.25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above.

351y

## BOSTON AND MAINE RAILROAD.

Upper Route, to Portland and the East.

## SUMMER ARRANGEMENT, April 1, 1847.

### PORTLAND TRAINS.

Leave Boston at 7 A.M. and 2½ P.M.  
Leave Portland at 7½ A.M. and 3 P.M.

### GREAT FALLS TRAIN.

Leave Boston at 5 P.M.  
Leave Great Falls at 6½ A.M.

### HAVERHILL TRAINS.

Leave Boston at 11½ A.M. and 6-20 P.M.  
Leave Haverhill at 6½ A.M. and 4½ P.M.

### READING TRAINS.

Leave Boston at 8½ A.M. and 8½ P.M.  
Leave Reading at 6 A.M. and 1½ P.M.

### MEDFORD BRANCH TRAINS.

Leave Boston at 7½, 11½ A.M., 2½, 5½, 7 P.M.  
Leave Medford at 6½, 8 A.M., 1½, 4½, 6 P.M.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value.

ly31 CHAS. MINOT, Super't.

## SUMMER ARRANGEMENT.—NEW YORK AND ERIE RAILROAD LINE, from April 1st until further notice, will

run daily (Sundays excepted) between the city of New York and Middletown, Goshen, and intermediate places, as follows:

FOR PASSENGERS—  
Leave New York at 7 A.M. and 4 P.M.  
" Middletown at 6½ A.M. and 5½ P.M.

FARE REDUCED to \$1.25 to Middletown—way in proportion. Breakfast, supper and berths can be had on the steamboat.

FOR FREIGHT—  
Leave New York at 5 P.M.  
" Middletown at 1½ M.

The names of the consignee and of the station where to be left, must be distinctly marked upon each article shipped. Freight not received after 5 P. M. in New York.

Apply to J. F. Clarkson, agent, at office corner of Duane and West sts. H. C. SEYMOUR, Sup't.

March 25th, 1846.

Stages run daily from Middletown, on the arrival of the afternoon train, to Milford, Carbondale, Honesdale, Montrose, Towanda, Owego, and West; also to Monticello, Windsor, Binghamton, Ithaca, etc., etc. Agent on board.

131y

## NORWICH AND WORCESTER RAILROAD.

Summer Arrangement, commencing Monday, April 6, 1846.

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 1½ p.m. train from Boston.

New York Train via Long Island Railroad: Leave Allyn's Point for Boston, about 1 p.m., daily, except Sunday.

Leave Worcester for New York, about 10 a.m., stopping at Webster, Danielsonville, and Norwich.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the steamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 4½ p.m., daily, except Sunday, stopping at Webster, Danielsonville and Norwich.

Freight Trains daily each way, except Sunday. Special contracts will be made for cargoes, or large quantities of freight, on application to the superintendent.

Fares are Less when paid for Tickets than when paid in the Cars.

32 ly J W. STOWELL, Sup't.



### TROY RAILROADS.—IMPORTANT NOTICE.

Troy and Greenbush Railroad, forming a continuous track from Boston

to Buffalo and Saratoga Springs. This road is new, and laid with the heaviest iron H rail. Trains will always be run on this road connecting at Greenbush each way with the trains to and from Boston and intermediate places, leaving Greenbush daily at 1 p.m. and 6 p.m., or on arrival of the trains from Boston; leave Troy at 7 1/2 a.m. and 4 1/2 p.m., or to connect with trains to Boston.

Trains also run hourly on this road between Troy and Albany. Running time between Greenbush and Troy, 15 minutes.

### TROY AND SCHENECTADY RAILROAD.

This road is laid its entire length with the heaviest H rail, which is not the fact with the road from Albany. Trains will always be run on this road connecting each way, to and from Buffalo and intermediate places. Leave Troy for Buffalo at 7 1/2 a.m. and 1 p.m. and 4 1/2 p.m., or to connect with the trains for the west; leave Schenectady at 2 1/2 a.m., 8 1/2 a.m., 1 p.m. and 3 1/2 p.m., or on arrival of the trains from Buffalo and intermediate places.

### TROY AND SARATOGA RAILROAD.

THE ONLY DIRECT ROUTE.

No change of passenger, baggage or other cars on this route. Cars leave Troy for Ballston, Saratoga Springs, Lake George and White Hall at 7 1/2 a.m., (arriving one hour in advance of the train from Albany,) and at 3 1/2 p.m. Returning, leave Saratoga at 9 a.m. and 3 1/2 p.m., (reaching Troy in time for the evening boats to New York.) Cars also leave Troy for the Burroughs at 3 1/2 p.m. and 7 p.m., connecting with packet boats for the north. This takes passengers from New York and Boston to Montreal in 44 hours.

N.B. Travellers will find the routes through Troy most convenient and economical, and as expeditious as any other. The steamboats to and from New York land within a few steps of the railroad office, and passengers are taken up and landed by the different railroad lines at the doors of principal hotels, thus saving all necessity for, and annoyance from, hack drivers, cabmen, runners, etc.

Aug. 3, 1846.

1y 32

### BALTIMORE AND OHIO RAILROAD.

MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7 1/2 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburg and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

### WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. \$13y1

### MANUFACTURE OF PATENT WIRE

Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by

JOHN A. ROEBLING, Civil Engineer,

Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railroad, has now run 4 seasons, and is still in good condition.

2v19 1y

### BALTIMORE AND SUSQUEHANNA RAILROAD.—Reduction of Fare.

Morning and Afternoon Trains between Balt-

imore and York.—The Passenger

trains run daily, except Sunday, as follows:

Leaves Baltimore at.....9 a.m. and 3 1/2 p.m.

Arrives at.....9 a.m. and 6 1/2 p.m.

Leaves York at.....5 a.m. and 3 p.m.

Arrives at.....12 1/2 p.m. and 8 p.m.

Leaves York for Columbia at.....1 1/2 p.m. and 8 a.m.

Leaves Columbia for York at.....8 a.m. and 2 p.m.

### FARE.

Fare to York.....\$1 50

" Wrightsville.....2 00

" Columbia.....2 12 1/2

Way points in proportion.

### PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Har-

risburg.....\$9

Or via Lancaster by railroad.....10

Through tickets to Harrisburg or Gettysburg.....3

In connection with the afternoon train at 3 1/2 o'clock,

a horse car is run to Green Spring and Owing's

Mill, arriving at the Mills at.....5 1/2 p.m.

Returning, leaves Owing's Mills at.....7 a.m.

D. C. H. BORDLEY, Sup't.

Ticket Office, 63 North st.

### CENTRAL RAILROAD-FROM SAVANNAH TO MACON.

Distance 190 miles.

This Road is open for the trans-

portation of Passengers and

Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally.....50 cts. per hundred.

On measurement goods.....13 cts. per cubic ft.

On brls. wet (except molasses

and oil).....\$1 50 per barrel.

On brls. dry (except lime).....80 cts. per barrel.

On iron in pigs or bars, cast-

ings for mills, and unboxed

machinery.....40 cts. per hundred.

On hhds. and pipes of liquor,

not over 120 gallons.....\$5 00 per hhd.

On molasses and oil.....\$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded

free of commission. THOMAS PURSE,

Gen'l. Sup't. Transportation.

### NEW YORK & HARLEM RAILROAD

CO.—Winter Arrangement.

On and after Monday, November 23,

1846, the cars will run as follows:

Leave 27th street for 42d street, Deaf and Dumb

Institute, Yorkville, Harlem Morrisiana, and Wil-

liams' Bridge, at 7 o'clock a.m. From City Hall

for above named places, 2 p.m. [freight train,] 2 30

p.m. 5 p.m. to Morrisiana only.

Leave City Hall for Harlem, Morrisiana, Ford-

ham and Williams' Bridge, at 7 45 a.m., and 10 45

a.m.; 1 15 p.m., 2 p.m. [freight train,] 2 30 p.m. and

3 45 p.m.

Leave City Hall for Hunt's Bridge, Bronx, Tue-

kahoe, Hart's Corners White Plains, Davis' Brook,

Unionville and Pleasantville, [Pleasantville 4 miles

from Sing Sing,] 7 45 and 10 45 a.m.; 1 15 p.m., 2

p.m. [freight train,] and 3 45 p.m.

### RETURNING.

Leave Pleasantville, at 8, 10, [freight train,] and

11 a.m.; 1 30, and 4 p.m.

Leave White Plains, at 8 12, 10 30, [freight train]

and 11 20 a.m.; 1 50, and 4 20, p.m.

Leave Tuckahoe, 8 35, 10 55, [freight train,] and

11 35, a.m.; 2 05, and 4 35, p.m.

Leave Williams' Bridge at 7 45, 8 50 and 11 50 a.

m.; 2 20, 4, and 4 50 p.m.

Leave Morrisiana 8 and 9 05 a.m.; 12 05, 2 35,

4 20, 5 05 and 6 p.m.

Leave Yorkville, at 8 12 a.m.; 4 35 and 6 15 p.m.

### SUNDAY ARRANGEMENTS.

Leave City Hall for Pleasantville and intermedi-

ate places, at 7 45 a.m.; 1 15 and 3 p.m.

Leave Pleasantville for City Hall, at 8 a.m.; 11,

and 3 15 p.m.

Leave City Hall for Williams' Bridge and intermedi-

ate places, 10 45 a.m.; 2 30 p.m.

Leave Williams' Bridge for City Hall, at 8 50

and 11 50 a.m.; 1, 3 45 and 4 05 p.m.

### PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1847.

Winter Arrangement.

Philadelphia for Baltimore.....8 a.m. and 4 p.m.

Baltimore for Philadelphia.....9 a.m. and 8 p.m.

Connecting in Baltimore with Mail Lines south and west, as per notice of the Baltimore and Ohio Railroad—and with Mail Lines north from Philadelphia, both morning and afternoon.

Sundays, the Morning Lines do not run in either direction.

Accommodation train from Wilmington to Philadelphia, leaves Wilmington at 8 a.m., and returns at 2 p.m.

J. R. TRIMBLE,

3d Engineer and General Superintendent.

### GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO OOTHICALOGA, 80 MILES.

This Road in connection with

the South Carolina Railroad and

Western and Atlantic Railroad now forms a con-

tinuous line, 388 miles in length, from Charleston

to Oothicaloga on the Oostenaula River, in Cass Co.,

Georgia.

### RATES OF FREIGHT.

	Between Augusta and Oothicaloga and Dalton, 260 miles.	Between Charleston, Oothicaloga and Dalton, 388 miles.
1st class. Boxes of Hats, Bonnets, and Furniture, per cubic foot.....	\$0 16	\$0 26
2d class. Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class. Sugar, Coffee, Liqueur, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class. Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.	0 45	0 70
Cotton, per 100 lbs.....	0 45	0 65
Molasses, per hogshead, 8 50	13 50	
" " barrel.....	2 00	3 25
Salt per bushel.....	0 17	
Salt per Liverpool sack.....		0 95
Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows.....	0 75	1 37

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight may be paid at Augusta, Atlanta, or Oothicaloga.

J. EDGAR THOMSON,

Ch. Eng. and Gen. Agent.

Augusta, Sept. 2d, 1846. 44 1y

### THE WESTERN AND ATLANTIC RAILROAD.—This Road is now in operation to Oothicaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tusculumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothicaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,

Chief Engineer.

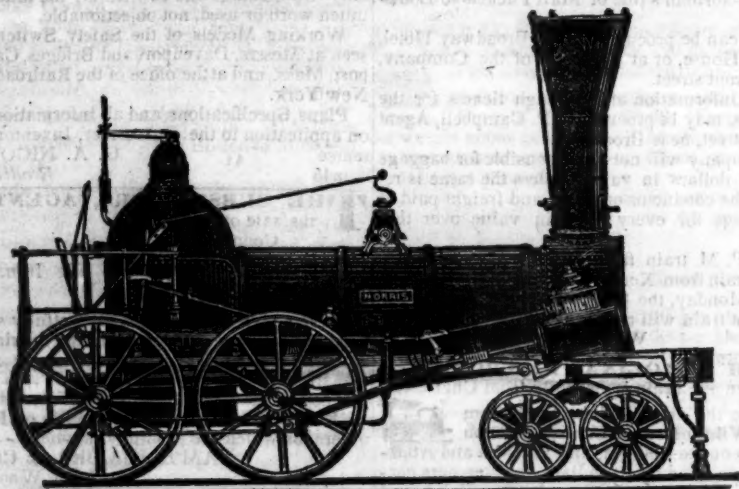
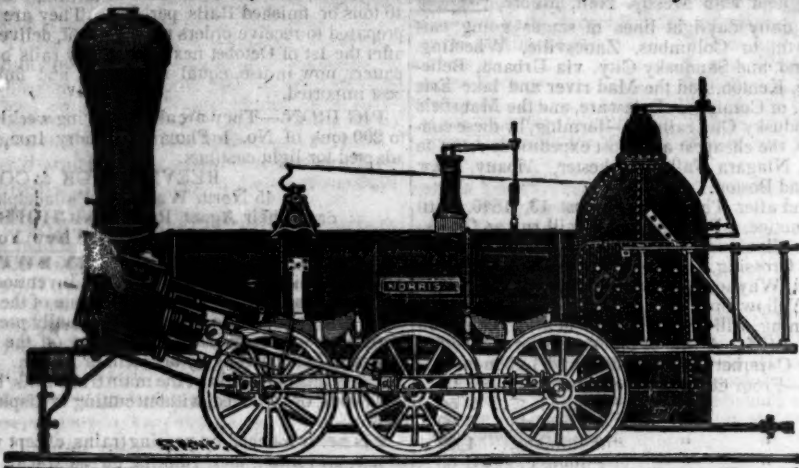
Atlanta, Georgia, April 16th, 1846. 1y1





# NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " × 24 " "
"	3,	14½	" " × 20 " "
"	4,	12½	" " × 20 " "
"	5,	11½	" " × 20 " "
"	6,	10½	" " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

**KEARNEY FRIE BRICK. F. W. BRINLEY**, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.  
Peter Cooper, }  
Murdock, Leavitt & Co. }  
J. Triplett & Son, Richmond, Va.  
J. R. Anderson, Tredegar Iron Works, Richmond, Va.  
J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }  
William Parker, Supt. Bost. and Wore. R. R.  
New Jersey Malleable Iron Co., Newark N. J.  
Gardiner, Harrison & Co. Newark, N. J.  
25,000 to 30,000 made weekly. 35

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. **ANDREW C. GRAY**, a45 President of the Newcastle Manuf. Co.

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand by **A. & G. RALSTON**, Mar. 20th 4 South Front St., Philadelphia. 28th

**VALUABLE PROPERTY ON THE MILL** Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, lace, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 ft. with lathes, work benches, Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, turnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS**, 48 State st., or to **CURTIS, LEAVENS & CO.**, 106 State st., Boston, or to **A. & G. RALSTON & Co.**, Philadelphia. ja45

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by **MORRIS, TASKER & MORRIS**, Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.

**TO LOCOMOTIVE AND MARINE ENGINE BOILER BUILDERS.** Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufacture! and for sale by

**MORRIS TASKER & MORRIS**, Warehouse S. E. corner 3d and Walnut Sts., Philadelphia. 11th

**PATENT INDESTRUCTIBLE WATER**

Pipes. The subscribers continue to manufacture the above Pipes, of all the sizes and strength required for City or Country use, and would invite individuals or companies to examine its merits. This pipe, unlike cast iron and lead, imparts neither color, oxide or taste, being formed of strongly riveted sheet iron, and evenly lined on the inside with hydraulic cement. While in the process of laying, it has a thick covering externally of the same—thus forming nature's own conduit of stone. The iron being thoroughly enclosed on both sides with cement, precludes the possibility of rust or decay, and renders the pipe truly indestructible. The prices are less than those of iron or lead. We also manufacture Basins and D. Traps, for Water Closets, on a new principle, which we wish the public to examine at 112 Fulton street, New York. 28th

**J. BALL & CO.**



**Baltimore and Pittsburgh.**

The *Baltimore American* of March 17, contains the following brief sketch of matters relating to a subject which just now occupies the attention of many of our readers—and we give the article entire—without comment at present. The *American* says:

When the Baltimore and Ohio railroad was first projected no definite terminus was fixed upon, either in Virginia or Pennsylvania—the great object in view being the construction of a road to the Ohio river. The route beyond the confines of Maryland, was undetermined. In order, however, to secure a choice of routes for future selection, or for branching to different points, the States of Virginia and Pennsylvania were applied to for the privilege of carrying the road through their respective territories. The privilege was granted in each State with the utmost liberality. Virginia allowed the road to strike the Ohio at any point above the mouth of the little Kanawha; Pennsylvania opened her territories to the road in view of its termination at Pittsburgh.

When the limitations of time designated by these Acts had respectively expired, the road by reason of various difficulties not having been so completed, a less liberal disposition prevailed both in Virginia and Pennsylvania towards the work. The former State refuses the right of way except to one point, and that is conceded under conditions which have decided the company to reject it at once and again. Pennsylvania, also, when requested in 1839 to renew the privileges formerly granted, took occasion to load the renewal with such restrictions and provisos as to render its acceptance impossible.

Closed out from both States the city of Baltimore, if left to her own resources, might have to wait long before an available route to the Ohio would be at her disposal. But it so happens that the city of Pittsburgh has secured a charter by which an unobstructed way is obtained from Cumberland, the present terminus of the road, to the Ohio river at Pittsburgh—and the facilities of this charter are proffered to the Baltimore company.

Now when it is remembered that the original enterprize of the company contemplated the construction of a road to the Ohio river, without reference to any ascertained route, or definite point of termination, it would seem that the main object aimed at is placed within the company's reach by this proffer on the part of Pittsburgh. It will not do to say that Pittsburgh was never looked to as one of the desirable points on the Ohio at which the road might be happily terminated. The fact is otherwise. The Pittsburgh route has been explored by the company's engineers; and not only explored—it has been found to be the shortest route from Cumberland to the Ohio; more than that, it has been found to be the cheapest route. The distance from Cumberland to Pittsburgh is 144 miles; and the respective distances from Cumberland to other points on the Ohio are thus set down: to Wheeling, through Pennsylvania, 176 miles; through Virginia, 205 miles; to Fishing Creek, 186 miles; to Parkersburg 223 miles.

Such are the respective distances from Cumberland to the points designated, as reported by B. H. LATROBE, Esq., the company's chief engineer, in 1845. The route then to Pittsburgh, as compared with the route through Virginia to Wheeling, the only southern route now open to the company, is 61 miles shorter; and according to Mr. LATROBE's estimate of the expense of construction and operation, it is less expensive by some \$6,000,000. "It has been shown," says Mr. LATROBE, in his report in 1845, when the Virginia law of that year relative to the Wheeling route was under consideration by the company, only to be promptly rejected—"it has been shown that to construct and work the road from Cumberland to Pittsburgh would cost about \$6,000,000 less than to Wheeling through Virginia on the route indicated by the law, and nearly \$4,000,000 less than to the mouth of Fishing creek. To secure the advantages of the Fishing creek terminus it is not doubted would be worth this additional 4,000,000, but it is equally unquestioned that to reach the Wheeling terminus would not be worth the difference of 6,000,000; so that if the choice were between Pittsburgh and Wheeling through Virginia, the former should be preferred; and while there is any prospect of obtaining sooner or later, from Pennsylvania the right to make it upon acceptable terms, the route now exacted by the Virginia law should not be adopted."

The right to make the road to Pittsburgh upon acceptable terms is obtained from Pennsylvania; the privilege is now at the company's option; the only alternative route to the Ohio is the one to Wheeling which was rejected in 1845, and which Mr. LATROBE says should not be adopted while there is any prospect of obtaining sooner or later, from Pennsylvania the right to make the road upon acceptable terms to Pittsburgh.

The cost of construction from Cumberland to the Ohio with double track, and operation with a trade of 150,000 passengers and 60,000 tons of freight per annum, upon the several lines on which estimates have been made, are stated by Mr. LATROBE in round numbers thus:

	Construction, actual cost.	Working, equiv. cap.	Total.
1. To Pittsburgh...	\$5,481,707	6,124,581	11,606,288
2. To Wheeling, thro' Penn.....	6,771,226	7,770,262	14,541,488
3. To Wheeling, thro' Va.....	8,348,832	9,295,274	17,644,106
4. To F. Creek...	7,170,250	8,273,315	15,443,565

It thus appears that if the choice of all routes to the Ohio were open to us, the route to Pittsburgh would be the shortest and the cheapest; and that, as compared with the route to Wheeling, through Virginia (the only alternative route within our reach) it is cheaper on the aggregate by some \$6,000,000.

The serious question now presents itself to the Baltimore and Ohio railroad company and to this community and presses for a speedy answer, whether we shall devote all our means and efforts to the prosecution of the road to the Ohio by the shortest and cheapest of all the routes, or suffer the road to stop

where it now is, at Cumberland, in the vague expectation that at some indefinite time the Legislature of Virginia may open the way to a terminus at Fishing creek. Is it not better to go at once to Pittsburgh? We can there have a terminus to rest upon; and when, in the enjoyment of a lucrative trade from that source, the Legislature of Virginia shall invite us to extend our road to a southern terminus at any point above the Little Kanawha, we will have it in our power to demand terms from Virginia in the shape of a liberal appropriation for the work. The people of North-western Virginia will do this; and we can leave them to take their own time.

**Railroad to Pittsburgh.**

The following extracts will give some idea of the state of feeling existing in regard to the road from Baltimore to Pittsburgh: we find them in the *Pittsburgh papers*—and a good deal of concern seems apparent there, in reference to the turn affairs have taken finally! The committee have responsible duties before them, as will be seen. A late number of the *Baltimore American* says:

Our community is awaiting with profound interest the result of the proceedings of the Committee appointed on Monday last at the meeting of the Stockholders of the Baltimore and Ohio Railroad Company. It is a subject of very general regret that the Committee did not proceed to Pittsburgh, in conformity with the instruction of the Stockholders: the expectation being confident and, we think, well founded, that personal intercourse, maintained on both sides in a frank and friendly spirit, would accomplish, surely and happily, the object of restoring good feeling, and a hearty co-operation in the consummation of a purpose of deep concern to both cities.

We observe that the Pittsburgh and Connellsville Stockholders' meeting was to take place on Friday, and not Thursday. What disposition was made of the letter of the Baltimore Committee we have yet to learn. The following extracts from Pittsburgh papers go to show the importance of having the Committee present there in person:

**From the Pittsburgh Gazette.**

A Committee has been appointed by the Baltimore Stockholders, who will probably reach here in time for the meeting of our Stockholders on Friday. These gentlemen will of course be received with all the courtesy and kindness which their personal character, as well as the importance of their mission, require at our hands; but we hope there will be no official negotiation with them, unless they come clothed with power to contract a permanent alliance, such an one as will have a binding effect upon the Baltimore company. We have had enough of committees going to and fro, and long-winded negotiations, and in the end have been further from a consummation than when we commenced. We can as well close the matter now as six months or a year hence, and if there is any disposition on the part of the Baltimore company to do so, it will be done.

**From the Pittsburgh Journal.**

A committee has been appointed to visit Pittsburgh, for the purpose of coming to a



conclusion in regard to the Connellsville route. The committee is composed of gentlemen whose characters for honor and integrity is undoubted: one of them has been long and well known to us. We hope that they will be received and treated with marked attention, and without any allusions calculated to hurt their pride or feelings. Let our conduct to them be in such strong contrast to theirs towards us, as to make them carry hence with them a lasting impression of our true greatness and magnanimity. We should remember, that we owe one debt to Baltimore, one that should make us pass over many faults, and that is the "determination of Philadelphia to build the Central railroad"—without the rivalry of Baltimore, the old Quakers of the City of Brotherly Love, would never have extended their vision beyond the Schuylkill. Baltimore has done us this kindness, and we thank her for it—and we may also thank her for not giving us a chance to precipitate ourselves too deeply into the stock of the Connellsville railroad. The surplus capital of Pittsburg will find ample employment in the construction of the Western railroad.

The Pittsburg Commercial Journal, of Saturday, has the following account of the proceedings of the meeting of the Stockholders of the Pittsburg and Connellsville road held in that city on Friday last:

The meeting of the Stockholders of the Pittsburg and Connellsville railroad yesterday in Philo Hall, was very numerously attended.

The meeting was organized by Mr. Eichbaum taking the chair; Dr. E. D. Gazzam acting as secretary.

A number of sets of resolutions were offered, and the prospects and present condition of the company discussed with much ability by Messrs. Wm. Robinson, Jr., Loomis, Larimer, Craft, Craig, Ebbs, Darsie, Denny, Bigham, Bakewell, Gazzam, and others.

The Hon. Andrew Stuart, of Fayette, being present, on motion of Col. Robinson, he was requested to address the meeting. Mr. S. complied in a few very neat and highly practical remarks. Another gentleman from Fayette, whose name we did not hear, also made some remarks, and submitted a series of resolutions.

Mr. Bigham explained his views in relation to the project of a western railroad, in his usual animated style.

Mr. Darsie expressed his conviction that the right of way for a western road, and a charter for the purpose could readily be obtained from the company.

Mr. Loomis eloquently argued in favor of the advantages offered us in the west, as superior to those of the east, by Baltimore. His speech was characterized by such great good sense, and a ready perception of all the points in the case, that it made a very marked impression on the meeting.

After a long discussion as to the mode in which the overtures of the Baltimore and Ohio company should be regarded, the proposition of Dr. E. D. Gazzam was adopted

for the appointment of a committee to take the various propositions into consideration, and report to an adjourned meeting of the stockholders, to be held at Philo Hall this afternoon at 3 o'clock.

Messrs. Gazzam, Bakewell, Robinson, Ebbs, and Darsie were appointed on the committee.

#### Fifteenth Annual Report of the Boston and Worcester Railroad Corporation.

To the Honorable Senate and House of Representatives:

The Directors of the Boston and Worcester railroad respectfully submit the Fifteenth Annual report of their proceedings, in compliance with the requisitions of their charter.

The business of the road has been successfully prosecuted during the year without interruption and without serious accident. There has been a large increase in the transportation of passengers and merchandize, compared with that of the most productive of the preceding years. Five passenger trains and two or more freight trains have run in each direction daily, except on Sundays, over the whole road, and an equal number of additional passenger trains have run, over the part of the road which terminates in the city. The frequency, regularity and rapidity of the trains, with their safety and convenience and the moderate rate of charge for passage and freight, are such as to command a large amount of public patronage, and at the same time, decided expressions of the public approbation. The power obtained from this, and other works of a similar character, of rapid and easy communication from the centre to the extremities of the State, has become one of the main elements of the public prosperity.

The directors, as trustees both for the public and for the large number of the stockholders of this corporation, on the occasion of presenting their annual statement exhibiting the successful operations of the road, feel justified in thus alluding to its public benefits, for the purpose of reminding the Legislature that, while the projectors of these very expensive works have realized their hope of a fair income from the capital invested in them, which constituted one of the motives for soliciting the authority of the Legislature to undertake them, so also the expectation of benefit to the public, in promoting, in various ways, the welfare of the Commonwealth, which constituted another and stronger motive, has been even more signally realized. The corporations established for these purposes, with a liberal grant of powers from the Legislature, have accomplished all, and more than all, which they promised for the public benefit, as the inducements for the grant of these powers.

This corporation is authorized, by an act in addition to its charter, for the greater accommodation of persons residing near the route of their railroad, to construct branch railroads to any part of the towns thro' which the main road passes; or of the towns adjoining. In pursuance of this authority, the corporation, in the year 1838, in compliance with the request of the inhabitants of Milbury,

constructed a branch railroad, which is a little more than three miles in length, leading to that town.

In the year 1845, on the application of the inhabitants of Saxonville, the directors commenced the construction of a branch, four miles in length, leading from Natick to that place. This branch was completed in the following year, and it has been since in regular use. In the year which has just passed, on the application of the inhabitants of Newton Lower Falls, the directors caused a branch railroad to be constructed, leading along the valley of Charles river to that place, which has been recently completed, and regular passenger trains now run between Boston and the Lower Falls village.

Early in the same year, the directors received an urgent application, from a large number of the inhabitants of Holliston, Milford, and some of the adjoining towns, to build a branch railroad leading to those towns. The length of the route here proposed is about 12 miles, and the heavy cost which it will involve demanded of the directors a deliberate consideration of the proposition, before they decided upon it. On full examination of the question, having ascertained that a favorable route could be obtained—that a large and thriving population were in want of the accommodation, and that they came directly within the scope of the provision in the additional act above referred to—finding, also, that the branch might be advantageously extended to the towns of Mendon, Blackstone and Woonsocket, in case the Legislature should authorize it to be done—they resolved on undertaking it. A branch road was accordingly definitively located, passing through a part of the towns of Sherburne and Ashland, and the centre of Holliston, and terminating near the centre of Milford. All parts of the line are now under contract for grading and masonry, and it is intended that the road shall be completed within the ensuing summer. Although there is no reason to anticipate that the increased business which will be afforded by the branch will, for the present, afford a full remuneration for the additional expenditure required, it was believed by the directors, to be for the interest of the corporation, to give this proof of its disposition to extend the benefits of their road to all persons who can reasonably demand accommodation from it, within the limits of the authority granted to them.

At the period of the commencement of the Saxonville branch, the directors were requested, by the inhabitants of the central village of Framingham, to extend the branch to that place. After a careful examination of the question, with the aid of the necessary surveys, they declined it, on the ground that, in their opinion, the inhabitants of the central village might be more effectually accommodated, by means of a shorter and less expensive branch, leading directly from the convenient and central station of the main road, at South Framingham, where it would connect with the trains running in each direction, than by the proposed circuitous branch leading from Natick through Saxonville; and



over ground less favorable. They, therefore, expressed a willingness to build the direct branch, in case it should be requested, but declined building the other. No such request has yet been made; but, on a recent application of a number of the inhabitants of the village, the question of the best mode of affording them the accommodation which they require, is now undergoing a revision, by the aid of further surveys, with a view to a decision upon it early in the ensuing season.

With a view to the adoption of a more convenient mode of uniting this road, at Worcester, with the Western, and Norwich and Worcester railroads, and also of establishing a connection between each of these roads and the Providence and Worcester, as well as the Nashua and Worcester roads, which are now in progress of construction, at a central point in the town of Worcester, by means of stations in the vicinity of one another, or by one station for the accommodation of the five railroads, the directors in pursuance of an informal understanding, between them and the directors of each of those roads, have taken the initiatory measures for the accomplishment of this object. To facilitate the execution of this purpose, the inhabitants of Worcester, by a resolution passed with great unanimity in town meeting, have authorized a material alteration of two of the streets, in a central part of the town, near the present passenger station of this and the Norwich and Worcester roads. The directors hope, in return for this obliging compliance of the town with their request, to be able to carry into effect an arrangement, which will as effectually promote the public convenience, as it will the advantage of the several corporations whose roads will thus be united at a single point, and in a central and the best adapted part of the town. For accomplishing this object in the manner proposed, it will be necessary to erect a new building, of sufficient dimensions to contain, in distinct apartments, the local trains of the several roads, as well as the trains which may pass through the principal routes, and also to afford suitable accommodations for passengers leaving or about to enter the respective trains.—For the completion of this arrangement, the concurrence and co-operation of the five corporations will, of course, be required.

Since the date of the last annual report, an agreement has been made, with the directors of the Western railroad corporation, for the adjustment of all matters in controversy between the two corporations, which were referred to, in that and in former annual reports. As a condition of this agreement, the petition of that corporation, which was presented to the Legislature at its last session, praying for its interposition in the support of certain claims resisted by this corporation, and also a petition of the said corporation, which was pending in the Supreme Judicial Court, for the appointment of commissioners to determine rates of compensation for the transportation of passengers and freight, were both withdrawn. The agreement is founded on the principle, that the two corporations possess equal powers and rights under their re-

spective charters, and it adopts regulations for the conducting of the joint business, and rules for the partition of the passage fares and freight, earned on the joint line of transportation, which were mutually satisfactory to the directors of the two roads, the latter taking effect from the commencement of the fiscal year then begun. Under these rules and regulations, the joint business has been successfully conducted during the past year; and it is believed that they have had the effect not only of sustaining all the just rights, but of promoting, in a very satisfactory manner, the interests of both corporations.

The directors have persevered in the purpose of substituting for the old rail of the first track, which was laid down in 1833, 1834 and 1835, and was of a weight of 40 lbs. per yard, a much stronger rail, weighing 63 lbs. per yard, and corresponding, in weight and form, with that of which the second track of this road is constructed. This measure had become necessary, or highly expedient, in consequence of the great weight of the engines and cars lately introduced upon the road.—The passenger and freight engines now principally used, and adapted to the dimensions of the trains now transported, are of nearly double the weight, of those which were required on the first opening of the road. At an early period of the last season, 13 miles of the improved track had been laid, and, during the subsequent part of the year 1100 tons of rails—a quantity sufficient for 11 additional miles of track—were imported, for the purpose of being immediately laid down. The establishment of the new tariff of duties, by which a reduction was made of about \$10 a ton in the duty on railroad iron entered after the 1st of December, offered a sufficient inducement for making a deposit of the iron in the custom house stores, until after that date.

This caused a delay in the laying down of these rails; but the necessary preparation having been previously made, by the removal of the old rails and the supply of gravel for the improvement of the road bed where necessary, the work has been prosecuted, under some disadvantages, during the winter. This work is not yet finished. An additional quantity of 900 tons of heavy rails has been contracted for in England, to be delivered early in the next summer. This will be sufficient, with what is now on hand, to complete the improved track, with the heavy rails, for a length of 33 miles, leaving but 11 or 12 miles to be completed in another year. The old rail is of sufficient strength for light engines and loads, and is well adapted for the branch roads, on which heavy engines are not required.

The subjoined statement contains the items of information required by law, to be embraced in the annual return, so far as they are exhibited by the books of the corporation. The details of expenditure in the construction and equipment of the road, as charged in the books, have not been entered under so many distinct heads of account as are specified in the recent act of the Legislature. The cost is therefore stated, in the annexed schedule,

under a classification conforming with that under which the books of account have been kept.

In the returns also of current expenses, a slight departure from the form prescribed in the printed schedule has been rendered necessary, from the manner in which these expenditures are charged in the books. Under the several heads of repairs, whether of road bridges, engines or cars, are entered all expenditures not only for repairs strictly speaking, but for new constructions, improvements, or additions; unless the additions so made exceed in value the deterioration of the property under that head, beyond the amount which represents it in the general stock; in which case, the excess charged to the appropriate head of the general account, and the residue to repairs. For this purpose, an estimate is made, as nearly as is practicable, before the closing of each year's accounts, of the property under each head of account, and of the amount of depreciation beyond the repairs, in comparison with the additions. The several heads of current expenditures for repairs, therefore, in all cases, include additions to the stock under the above limitation.

As the items embraced in the prescribed form of return do not embrace all the descriptions of property of the corporation, so as to exhibit the balance of its assets and liabilities, the following recapitulation, embracing the additional items, is subjoined, viz:—

Original cost of road and equipment, with that of additions when the amt exceeds in value that of depreciation, as given in the annexed sched <sup>l</sup> .	\$3,485,232 43
Cash, notes receivable, shares in stock of the corporation, stock acc <sup>t</sup> , including rails not laid down, fuel, oil, stock of car building, machine, and repair shops, etc..	338,697 63
	<hr/> 3,823,930 06

<i>Liabilities, viz:</i>	
Capital stock .....	3,500,000 00
Debts, including divid <sup>s</sup> unclaimed, Dec. 1, '46.	154,204 95
	<hr/> 3,654,204 95

Balance of net profits undivided, Dec. 1, 1846 .....	169,725 80
Dividend of 4 per cent. subsequently declared payable Jan. 1, 1847 .....	140,000 00
Surplus not divided .....	29,732 86

With these explanations, the undersigned hereto subjoin the return required by law, which is respectfully submitted.

Nathan Hale, Daniel Denny, Eliph. Williams, Nathaniel Hammond, Benjamin F. White, John Hathaway, Abraham T. Lowe, Samuel Greele.

Boston, Jan. 26, 1847.

SUFFOLK ss. Boston, Jan. 29th, 1847.—Then personally appeared the above-named Nathan Hale, Eliphalet Williams, Nathaniel Hammond, Benjamin F. White, John Hathaway, Abraham T. Lowe and Samuel Greele, and severally made oath that the foregoing report, by them subscribed, is true, to the best of their knowledge and belief. Before me, GEORGE BENJA, Justice of the Peace.

## Massachusetts Annual Railroad Reports.

Return of the Boston and Worcester Railroad, under the Act of April 16, 1846.

Capital stock.....	\$3,500,000
Increase of capital since last report.....	600,000
Capital paid in, per last report.....	2,900,000
Capital paid in since last report.....	600,000
Total amount of capital stock paid in.....	3,500,000
Funded debt, per last report.....	None.
Funded debt paid since last report.....	None.
Funded debt, increase of, since last report.....	None.
Total present amount of funded debt.....	None.
Floating debt, per last report.....	None.
Floating debt paid since last report.....	None.
Floating debt, increase of, since last report.....	None.
Total present amount of floating debt.....	None.
Total present amount of funded and floating debt, (including dividends unclaimed).....	154,904 25
Average rate of interest per annum on do.....	Six per cent.
COST OF ROAD AND EQUIPMENT.	
For graduation and masonry, per last report.....	
For graduation and masonry, paid during the year	
Total amount expended for graduation and masonry	
For bridges, per last report.....	
For bridges, paid during the past year.....	
Total amount expended for bridges.....	
For superstructure, including iron, per last report.....	
For superstructure, including iron, paid during the	
the past year.....	
Total amount expended for superstructure, includ-	
ing iron.....	
For stations, buildings and fixtures, as per last re-	
port.....	
For stations, buildings and fixtures, paid during the	
past year.....	
Total amount expended for stations, buildings and	
fixtures.....	
For land, land-damages and fences, per last report.	
For land, land-damages and fences, paid during the	
past year.....	
Total amount expended for land, land-damages and	
fences.....	
For locomotives, per last report.....	
For locomotives, paid during the past year.....	
Total amount expended for locomotives.....	124,396 69
For passenger and baggage cars, per last report.....	
For passenger and baggage cars, paid during the	
past year.....	
Total amount expended for passenger and bag-	
gage cars.....	
For merchandise cars, per last report.....	
For merchandise cars, paid during the past year.....	
Total amount expended for merchandise cars.....	
For engineering and other expenses, per last report.	
For engineering and other expenses, paid during the	
past year.....	
Total amount expended for engineering and other	
expenses.....	
Total cost of road and equipment.....	\$3,485,232 43
CHARACTERISTICS OF ROAD.	
Length of road.....	44½ miles.
Length of single track.....	
Length of double track.....	44½ miles.
Length of branches owned by the company, stating	
whether they have a single or double track:	
[Millbury 3 1-5, Saxonyville 4, Newton 1½ miles]...	8 9-20 miles.
Weight of rail per yard in main road.....	40 to 64 pounds.
Weight of rail per yard in branch roads.....	40 pounds.
Maximum grade, with its length in main road.....	30 feet for 14½ miles.
Maximum grade, with its length in branch roads...	30 feet for 2½ miles.
Total rise and fall in main road.....	702 feet.
Total rise and fall in branch roads:	
[Millbury 62, Saxonyville 63, Newton 15 feet].....	140 feet.
Shortest radius of curvature, with length of curve in	
main road.....	600 feet for 900 feet.
Shortest radius of curvature, with length of curve in	
branch roads.....	600 feet for 900 feet.
Total degrees of curvature in main road.....	1975 degrees.
Total degrees of curvature in branch roads:	
[Millbury 166, Saxonyville 336, Newton 75 degrees]...	577 degrees.
Total length of straight line in main road.....	25-827 miles.
Total length of straight lines in branches:	
[Millbury 14, Saxonyville 2, Newton 3-5 miles]....	4 7-20 miles.
Aggregate length of truss bridges.....	350 feet.
Whole length of road unfinished on both sides.....	None.
MILES RUN DURING THE YEAR.	
Miles run by passenger trains.....	195,693
Miles run by freight trains.....	93,008
Miles run by other trains.....	6,283
Total miles run.....	294,983

Number of passengers carried in the cars.....	470,319
Number of passengers carried one mile.....	12,766,522
Number of tons of merchandize carried in the cars.....	179,335
Number of tons of merchandize carried one mile.....	6,941,291
Number of passengers carried one mile, to and from	
other roads.....	6,485,873
Number of tons carried one mile, to and from other	
roads.....	5,171,664
Average rate of speed adopted for passenger trains,	
including stops.....	23 miles per hour.
Average rate of speed adopted for freight trains, in-	
cluding stops.....	9 miles per hour.
Estimated weight in tons of passenger trains, includ-	
ing engine and tender, but not including passen-	
gers, hauled one mile.....	9,555,301 tons, of 2000 lbs.
Estimated weight of merchandize trains, including	
engine and tender, but not including freight, haul-	
ed one mile.....	11,193,204 tons, do.
EXPENDITURES FOR WORKING THE ROAD.	
For repairs of road, maintenance of way, exclusive	
of wooden truss bridges and renewals of iron.....	\$32,814 58
For repairs of truss bridges.....	9,652 74
For renewals of iron, including laying down.....	12,132 00
For wages of switch-men, gate-keepers and flag-men	
For removing ice and snow.....	2,433 05
For repairs of fences, gates, houses for flag-men,	
gate-keepers, switch-men, tool-houses.....	411 95
Total for maintenance of way.....	In general account of repairs.
MOTIVE POWERS.	
For repairs of locomotives.....	\$31,534 85
For new locomotives to cover depreciation.....	
For repairs of passenger cars.....	16,840 33
For new passenger cars to cover depreciation.....	
For repairs of merchandize cars.....	18,887 59
For new merchandize cars to cover depreciation....	
For repairs of gravel and other cars.....	Small, and included in
Total for maintenance of motive power.....	[repairs.
MISCELLANEOUS.	
For fuel and oil, [fuel, \$50,226 93; oil, \$5,884 93].....	\$58,811 86
For salaries, wages and incidental expenses, charge-	
able to passenger department.....	39,505 41
For salaries, wages and incidental expenses, charge-	
able to freight department.....	45,879 65
For gratuities and damages.....	3,417 73
For taxes and insurance, [taxes, \$4,041 17; insur-	
ance, \$1,403 49].....	5,441 66
For ferries.....	
For repairs of station building, aqueducts, fixtures,	
furniture.....	3,986 10
For interest.....	
For amount paid other companies in tolls for pas-	
sengers and freight carried on their roads, specify-	
ing each company.....	None.
For amount paid other companies as rent for use of	
their roads, specifying each company.....	None.
For salaries of president, treasurer, superintendent,	
law expenses, office expenses of the above offices,	
and all other expenses not included in any of the	
foregoing items.....	15,123 66
	283,876 11
INCOME DURING THE YEAR.	
For Passengers:	
1. On the main road exclusively, including branch	
owned by company.....	279,792 59
2. To and from other roads, specifying what.....	None.
For Freight:	
1. On main road and branches owned by company.	
2. To and from other connecting roads.....	None.
[U. S. Mails, \$1,152 91. Rents, \$6,647 02. Other	
Income, \$6,954 52].....	14,754 45
Total income.....	554,712 46
Net earnings after deducting expenses.....	270,836 35
DIVIDENDS.	
[Four per cent, paid July, 1846....]	\$120,000
[Four per cent, payable Jan., 1847. ....]	140,000
	260,000 00
Surplus not divided.....	10,839 95
Surplus last year.....	18,889 45
Total surplus.....	29,725 90
ESTIMATED DEPRECIATION BEYOND RENEWALS, VIZ:	
Road and bridges.....	
Buildings.....	
Engines and cars.....	



Correspondents will oblige us by sending in their communications by Tuesday morning at latest.

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## AMERICAN RAILROAD JOURNAL.

Published by D. K. MINOR, 105 Chestnut St., Philadelphia.

Saturday, April 10, 1847.

## Boston and Worcester Railroad.

The Fifteenth Annual Report of this road will be found in this number. In its details it is in the prescribed form required by the Legislature. We shall continue to publish these reports, in their new form, that they may hereafter be referred to for comparison.

## Baltimore and Ohio Railroad Report.

We give, in this number, the remainder of this report, commenced in our last—and we give it in full, with all the tables—relating to the business of the year—which will be sure to arrest the attention of professional readers—especially the statement in relation to the comparative cost of working the road with a *plate*, or an *edge*, rail; and also statement C, or the detail for 1846. We shall give, in the next number, statement D—or the statement in detail for 1845—similar to that of D, for 1846—which was omitted last year.

## The Late Storm.

Since our last number, a very serious storm has occurred, which occasioned much damage in New York, Philadelphia, Baltimore, etc. The magnetic telegraph lines, it appears, were extensively injured. Between Wilmington and thence eastward towards New York, the posts were blown down and the wires broken in various places. The line to Lancaster, Pa., was also much injured. The repairs of the several lines were commenced with energy, but several days elapsed before the communications were restored.

The injuries upon the line between Philadelphia and Baltimore, especially, were very considerable—and the "lightning talk" was broken off entirely for some days. In the mean time, important news from the army was received in Washington, which was communicated northward by the regular mails.

## Table of Railroads in the United States.

## Correction of its Errors.

We are obliged to the writer of the following letter, for his early attention to our request for accurate information in relation to, or for the correction of, errors in our Table of American Railroads; and we shall esteem it a special favor if other gentlemen, having the means of correcting errors in other roads, will enable us, at an early day to make this table as correct as possible. It requires but little labor on the part of each to enable us to make it a document of great value to those interested in railroads. Yet, to make it accurate, up to the present time, it is important that we should be enabled to correct errors resulting from the lack of documents of a recent date in relation to some of the roads. We propose soon to issue another edition of the table—or at least as soon as we can obtain full returns.

KEENE, March 25, 1847.

"Dear Sir—In your Table of 'Railroads in the United States,' I observe certain errors:

"15. The 'Cheshire' from 'State Line, Fitzwilliam, N. H.' This should be from Ashburnham, Mass., to Bellows' Falls. Length 53 miles, instead of 45—weight of rail 60 lbs.—T pattern.

"Length of Vermont and Massachusetts is 69 miles, instead of 65.

"Central road extends from Windsor, Vt. to Burlington, 117 miles.

"A new road should be added—the 'Sullivan'—extending from Cheshire, at Bellows' Falls, to Central at Windsor—length 25 miles.

"Respectfully yours,

T. M. EDWARDS."

## Railroads, Canals, etc.

The Northern New Hampshire railroad has been open for use to Franklin, a distance of 18 miles from Concord, during the last two months. It is expected that the cars will be running a further distance of 15 miles to North Andover by July next. It is expected that in the course of the year the whole road will be completed to the Connecticut river, and that within the same period the Central road in Vermont will be completed, from the Connecticut river to Montpelier. The receipts of income on the 18 miles of railroad already open, have exceeded \$8000 in the last two months, and the net receipts, after deducting expenses, are equal to a rate of 8½ per cent. per annum.

The Journal of Commerce states that the \$3,000,000 subscription to the capital stock of the Hudson River railroad having been completed on the 22d ult., the Directors yesterday made choice of Wm. Chamberlain for President; James Boorman, Vice President, and Treasurer pro. tem.; J. M. Hopkins, Secretary; J. B. Jervis, Chief Engineer, and Fortune C. White, Land Commissioner. These are all very good appointments.

The New York correspondent of the Washington Union writes that, "the Directors of the Hudson River railroad are pushing forward the works with the best spirit. Two corps of engineers were to take the field on Saturday—one on this island, and the other in Westchester county, from the southern line of the county advancing northward. In a very few days a third corps will be at work in the Highlands. The road will go on as fast as possible, and its friends hope will be well nigh finished before its gainsayers are done croaking that it will never be commenced. Push on—room enough for all! No fear that we shall get too many railroads from this city."

The Knickerbocker will take her place at once upon the Norwich and Worcester line to Boston.—The Worcester will haul off to repair, and afterward, with the Knickerbocker, will form the SUMMER line to Boston. These boats are both too well known to the public to require any commendation.

The Directors of the Terre Haute and Richmond railroad company had their first meeting on the 4th ult. at Terre Haute. The Board have determined to open books for the subscription of stock at an early day in April, at Terre Haute, Greencastle, Indianapolis and Richmond; and at St. Louis, Cincinnati, and other cities, as soon as the convention, which is to assemble in May next at Indianapolis, shall determine on the best plan of operations. This road across the State of Indiana, is intended as a link in the great chain of railway from the Atlantic by way of Baltimore and Philadelphia, to the Missouri river at St. Louis.

A mass meeting of the citizens of Penobscot,

Somerset, and Piscataque, was held at Dexter, Me., in reference to a railroad from the Kennebec to Bangor. Resolutions were adopted, declaring that in the opinion of the meeting, the time had come when a railroad from the Kennebec river to Bangor can be accomplished, and that the citizens between those rivers "can and will subscribe to the stock of the Penobscot and Kennebec railroad, the sum of \$200,000."

The Railroad Committee of the Massachusetts Legislature have reported a bill authorizing the Fitchburg railroad company, to extend their road into Boston and construct a depot on that side of the bridge. The authorities of the city, remarks the Traveller, as is known, remonstrated against this, chiefly from apprehension of danger to passengers over the Warren bridge, which bridge it is designed to use for the track. We understand, however, that it is contemplated to construct the railway so distinct from the bridge as to remove all reasonable grounds of apprehension. It is not only just that the Fitchburg railroad should enjoy equal advantages with the other railroad in this respect, but it is very desirable, as a matter of accommodation and convenience to travellers to and from the city, that the depot of that road should be located within the city. Boston can well afford to be liberal in extending accommodations to railroad companies. The bill in favor of the proposed depot passed its third reading unanimously, in the Senate on Wednesday.

We learn from the Baltimore American, that large numbers of boats are on their way down the Pennsylvania and Tide Water canals, laden with produce for the Baltimore market. The chain of works is said to be in good order, and a large business is anticipated.

The Tide Water canal is now fairly in operation, boats having arrived from Columbia. The Hayre de Grace boats were loaded with lumber, and left for Baltimore in tow of the steamboat Wolcott.

The navigation of the Pennsylvania canal has been delayed by the unfinished state of a new aqueduct at Conewango Falls. The whole line is now in operation we learn, and a large business may be expected.

The Susquehanna river has been navigable for arks and rafts for some days, and a quantity of lumber has arrived at Port Deposit.

The Pottsville Miners' Journal, of Saturday, says, "the quantity of coal sent this week is 20,436-10 tons, making the total quantity sent this season 195,852-03 tons by railroad.

The subscriptions to the stock of the Pennsylvania Central railroad, amount to \$3,037,650 or 60,753 shares.

The railway share market closed, in Boston, on Saturday, at the following quotations:

	Offered.	Asked.
Lowell Railroad par \$500.....	580	590
Nashua do. 100.....	128½	130
Concord do. 50.....	68½	69
Fitchburg do. 100.....	123	124
Worcester do. 100.....	116	117
Western do. 100.....	100½	101
Maine do. 100.....	109½	110½
Providence do. 100.....	104	104½
Eastern do. 100.....	107	107½
Portland do. 100.....	100½	101½
Old Colony do. 100.....	98½	99

The Courier adds—These solid securities are like gold dust in the market, and are always sure of commanding the needful, on hypothecation, with a reasonable margin between the amount loaned and the current price of the stock. Railroad property, of the dividend class, is the best endorser which a business man can possibly have.



About \$75,000 have been subscribed on the Cape for the branch railroad to Cape Cod.

The feeling in favor of railroads in Maine is still on the advance; and meetings are called in every section of that State, having for their object, the extension of railroad facilities. We are glad to see that there is no disposition to flag, in regard to the projects already under way there—while new proposals, and new routes are constantly being pressed upon the consideration of capitalists in that region.

#### The Telegraph System.

The late storms seem to have produced havoc among the lines of telegraph. In every direction they have been thrown down, and in at least one case, where they have been constructed along lines of railroads, a serious accident has been occasioned to a train, attended, we believe, with loss of life, in consequence of the locomotive having been entangled in the wires of the telegraph, which had been broken, and thrown down by the gale.

These accidents, coupled with the frauds previously perpetrated on the public, by the cutting of the wires, on the arrival of steamers from England, show something wrong in the present system, and a few suggestions on the subject, it seems to us, may not be out of place.

It appears to us, that the plan of the agent of Mr. Morse, and his associates, (Mr. Amos Kendall) for deriving the maximum profit, from the improvement, is calculated to lead to a most imperfect system. It is generally understood that Mr. Kendall refuses to sell the patent on any route, or to allow its use on any terms, other than on the condition of the patentees, having as a consideration for the use of the patent, *one-half* the stock, or property, in any line on which it may be used. The exaction of this enormous *bonus* deters prudent men, who perceive that it must necessarily lead to other plans of telegraph being introduced, from embarking capital to any extent in lines so organized. As a consequence, the lines are, we understand, in some cases, undertaken by persons of very limited means, who are induced to subscribe by contractors engaged to raise the subscriptions, on condition of being employed to put up the telegraphs at a specified sum per mile. The temptation is, of course, a very great one to the contractor to expend as little as possible, and to put up these lines in the cheapest and frailest manner—and thus, while the capital stock issued for each of these lines, under this system of double *bonus*, is about *fourfold* their actual cost—the lines themselves are of the most imperfect character. In some cases, where leave has been had of the railroad companies, they are taken along lines of railroad; in other cases along common roads; but the permission, when they are taken along railroads, has been usually given by the railroad companies subject, at any time, to be revoked on short notice, and we do not hear of any instance in which arrangements have been made with the railroad companies for the prompt repair of the telegraphs when out of order, or for giving to the lines of telegraph the benefit of the police of the railroad companies, which might be so invaluable, for their protection.

But a further objection to the whole system is, that imperfect as it is, it has become a *monopoly* of the *closest* kind, and threatens to be one of a *monstrous* character. Some two or three, or a small number of individuals, of whom Mr. Kendall is the co-partner and agent, owning, under this system, *one-half* the stock, have the absolute control of all the telegraphs in the United States, with the power of tax-

ing, to any extent, the transmission of intelligence, *however imperfectly the duty may be performed.*

We have a high opinion of the character of Professor Morse, and of the value of his improvement, and would be glad to see the most liberal reward accrue to him from his invention, but we are satisfied he has been ill-advised as to the best mode of using his patent, and that he is not on the plan to make it most valuable to himself or the public.

No one ever heard before of an inventor refusing to sell his patent, and requiring as the consideration for its use, not only half the profits to accrue from it during the existence of the patent, but half the *property* on which it was to be applied. It is as if Oliver Evans had exacted as a condition of the use of patent mill gleaning, half the estate in mills in the United States; or as if the inventor of a patent plough should require as a condition of using it, the conveyance of an undivided moiety of the farms on which it might be employed, and of the profits of its cultivation.

As a necessary consequence, it becomes of great moment to the public—if Professor Morse and his associates continue to refuse to sell the patent right to his improvement, that some other plan of telegraph should be introduced, and we have little doubt, with the ingenuity and science directed to the subject, that other plans must, ere long, be introduced, as valuable, if not more so than that of Mr. Morse.

We would make, under these circumstances, a suggestion to the railroad companies throughout the country, in relation to this matter. Their interest is, in a measure, connected with it, and they are, in our opinion, the parties who can make the system most useful to the public, and most profitable to the proprietors of the right.

It is, it seems to us, the true policy of the railroad companies, and also due to the public, that they should not aid in fastening the present, or any other similar monopoly upon the country, by giving to any telegraph company a right to put up its posts and wires on its line; but that they should construct and keep in order, when adequate inducements may be offered, by any telegraph company, a line of posts, with one or more wires, reserving the right to make use of the posts hereafter for other lines or plans of telegraph; and to place on them as many wires as the business of the country may require. The advantage of this system is, that while the railroad tracks would be encumbered with only a single set of posts, and the risk of accidents from them be proportionably diminished, an opening would be made for the largest possible competition hereafter, in the conveyance of intelligence, whether on one or many plans. The public and the railroad companies, would both gain by the arrangement. The former in having better telegraphs, guarded, and kept in better order, and operated by competing companies, the latter in profits which they would derive from the rent of wires to, or a share in the operations of, several companies instead of one, while they would have only the expense of keeping in order single lines of posts and wires, an object obviously much better effected by the railroad companies than by any other agency.

If we mistake not, on some such plan the telegraph system—which is now a subject of great complaint in many cases—may be made a source of great convenience and value to the public, and of handsome profit, to railroad companies. Under such a system, it seems to us, we should have better telegraphs, kept constantly in working order, and abundant wires for the proper dispatch of intelligence, while the agents and numerous hands along the lines of

railroads, would protect the common posts and wires of the different lines of telegraph (and necessarily all equally) against injury. As it is, while the charges are now so high as to prevent the use of the telegraphs, except on business of great importance, they are made the instruments of frauds on the public, are frequently out of order, inadequately provided with wires, and, instead of being constantly watched, and repaired, in case of accident, in a fraction of an hour, as they would be, if owned, and kept in order by the railroad companies—days, and sometimes nearly a week elapses, before the place where comparatively a slight injury has occurred, is ascertained and repaired.

We throw out these suggestions, in the hope that the subject—one of vast and growing importance—may receive proper attention, before the present monopolizing system shall have gained a foot-hold so firmly, that others equally—perhaps more—deserving, may not have a fair chance; and, also, that the public may have the benefit of fair competition in the use of the wires, while all parties will have the advantage of the unceasing vigilance of the numerous persons employed by railroad companies in keeping them in constant working order. We shall refer to this subject again.

#### Railroad from Philadelphia to Pittsburg.

We have repeatedly been questioned of late, touching our opinion in reference to a railroad from this city to Pittsburg, and the inquiries have been made with regard to our views of the route proposed by the friends of the Great Central road, as compared with that by way of the West Branch, hence to the Ohio river. By reference to back numbers of the "Journal," our opinions upon this question will be found freely and candidly expressed; as we have endeavored, in times past, to give our views, generally, upon this, as upon all other questions which we have conceived to come legitimately within the scope of our province, in an unprejudiced and impartial manner; and have at all times, to say the least, spoken without any self-interestedness.

We have, however, differed somewhat from many others, from the outset, in relation to the route which should be adopted for a railroad from Philadelphia to Pittsburg; believing that it should be laid through a region—if such an one can be found, equally favorable—not already accommodated with an easy and cheap means of transportation; and we still see no reason to change our opinion on the subject—as it is a principle with us to advocate measures which will give the greatest amount of accommodation to the greatest number of people, for the least possible judicious investment of capital. The entertainment of these views, does not, however, prevent us from taking a deep and abiding interest in the early construction of the "Central" road.

Of the entire feasibility of the Central route, we do not entertain a doubt—any more than we do of the right of those who furnish the capital to accomplish the object, to designate the general route to be pursued.

The present favorable aspect of affairs in regard to this route, and the well-known reputation of those who have lately been elected to manage its concerns, is, we think, sufficient guarantee that the "Central" road is in a fair way, and will be pushed forward as earnestly as is possible; and therefore any speculations as to the ultimate general result of the undertaking, are unnecessary. The names of the gentlemen selected to conduct its affairs for the present year, is ample warrant of judicious management; and we entertain no doubt, if the Board of Directors is as fortunate in the selection of its Engineers, as the Stockholders have been in their



choice of officers, that a good road will be soon be commenced, and completed at an early day.

Our conviction is, then—in reference to the Central route—that at no time since the subject was first broached, has the prospect been so good as it now seems, for its construction. The scheme has been before the public a sufficient length of time, for all its advantages to be brought out and thoroughly canvassed—and the few objections which have, from time to time, been urged against it, have also been leisurely and carefully considered. Capitalists have been found to subscribe liberally and promptly for the stock—the people of this city, through their representatives, have sanctioned the enterprise, and the Central road will be built; and time will show whether we judge rightly in the prediction that it will prove a highly profitable investment to its stockholders, and a means of communication from the Ohio river to the Atlantic—such as does not now exist in this country—all things considered. To the city of Philadelphia, more especially, we believe it will prove a source of benefit, now incalculable; and on its completion we shall witness an increase in the commercial prosperity of this city and state, hitherto unprecedented in our local history. Thus much, briefly, for the Central route.

In these remarks in relation to the Central road, we do not in the least intend to change our ground in relation to the importance of a road up the "West Branch," and to the lake at Erie, because we deem it of the utmost importance to this city. On the contrary, we are fully convinced that the completion of the Central road will ensure the construction of the Northern; and we would therefore recommend to its friends the propriety of a steady, untiring effort to push it forward, without regard to the Central line—bearing in mind the fact that the citizens of Philadelphia have decided in relation to that work, and that they are able, and will soon be willing, to construct the Northern line also.

There are many careful, cautious business men, we are well aware, who honestly doubt the construction of even one railroad to the western waters, and they are, in their wisdom, sure that, if it should be built, it will "never pay"—that is, it will never yield a fair interest on the investment of capital—while we are as well convinced that it will be with great difficulty that we can construct avenues of communication fast enough to accommodate the trade of the west! and that capital thus invested will not only contribute largely to the increase in the value of property, along its line, as well as in this city, but also pay a good interest to the holder of the stock.

A glance at the statistics of exports from the west and northwest, during the last three years, to the Atlantic cities, by way of the lakes, and via New Orleans—will convince the most skeptical of the soundness of this general position. The immense quantities of pork, flour, corn, wheat, etc., conveyed annually to Baltimore, Philadelphia, New York and Boston, from the western States (down the Mississippi river) for home consumption, and for foreign shipment, is almost incredible. The large amount of breadstuffs, which reach tide-water, from the country bordering upon the lakes—down the Hudson and over the Western railroad, is another feature for consideration.

Our readers are aware of the fact, no doubt, that during the past season, it has been utterly out of the power, and beyond the capacities of the Western road, with all its immense amount of machinery, and merchandize accommodations, to transport produce as rapidly as was desired by shippers; and repeatedly, during the last three or four months, the

storehouses along the line have been crammed to their utmost capacities, with produce which, for the time being, it was impossible to forward, in consequence of the press of business. This was not originally calculated upon, nor is it now believed, by those who are determined to be skeptical, that *this trade must continue*—and that, instead of diminishing, it will increase in years to come! As sure as we now live to witness this extraordinary prosperity in our internal affairs, so sure will this traffic advance, and in an increased ratio, too! Such, then, being the fair presumption, why talk of the probability that two channels through the great "Keystone" State, for the accommodation and partial transport of this produce, cannot exist! The feeling is altogether too narrow—and is unworthy of our consideration, in these days of national improvements, and national prosperity!

We have said it is our purpose and wish to lend our humble aid in favor of both these great projects, and it is the design of the Railroad Journal to support, *always*, the plans of all sections of the country in internal improvements. We have no disposition to prefer one for another, or to bring one into disparagement at another's expense. We, therefore, repeat, that while we earnestly hope to see the energies of capitalists and business men put forward to urge on the progress of the Central road to completion, we shall be most happy to see the prospects of the Northern Route brighten. The road as proposed along the West Branch, passes through a most fertile and beautiful country, rich in agricultural and mineral wealth. A part of its course will lie through a section of the State which is thickly populated, and it will be sufficiently distant from the line of the Central road, to ensure it a good business, at all seasons of the year.

Its terminus, at the Lake, will be its most important feature, and its transportation business could not be otherwise than productive of immense profit. The local business and the local travel, too, upon this route, must necessarily be very great—while the produce of the Lake country, and the northwest, would find its way (in a very considerable proportion) to the east—through such a channel. That a road, "by way of the West Branch," would prove a highly profitable undertaking, and that it must be a successful one, in all respects—none will question. But that it will materially interfere with the Central, or that with the other—we cannot believe. To the friends of the Northern route, then, we say most cordially—go on with your work—and let us have such a road as the wealth and abilities of the city and country can give us. There is room for both—there will be ample business for both—their interests need in no wise conflict—there is need of both—and now is the time to press the enterprise forward. With two such routes as these through the State, no fears need be entertained for the result—nor can any rival route be brought to bear, injuriously, upon the interests of these. Competition increases business. Increased facilities tend inevitably to enhance commercial traffic—and we could readily point to scores of instances, both in this country and in Europe, to sustain this proposition.

Let us have the "Central" road, then—and, by all means, let us have the "Northern." Let the friends of each look to the interests of each—and, adopting the broad principle that there is "room enough in this world for us all"—let them strain every energy to consummate both plans, and thus place the State of Pennsylvania in front of all competitors as regards her great internal improvements.

Baltimore and Ohio Railroad.

(Continued from page 216.)

Dr. STATEMENT A.	
Stock in the Washington branch road.	\$1,032,600 00
Cost of road to Harper's Ferry, including real estate and depots, locomotives, passenger and burden cars, etc.	4,000,000 00
Cost of road west of Harper's Ferry.	3,623,606 23
Coal trade, for amount due on that account.	101,494 78
Sterling bonds in the hands of Messrs. Baring, Brothers & Co., of London.	3,181,005 11
City of Baltimore six per cent. stock on hand.	20,096 59
Sinking fund, for the redemption of the million loan.	55,990 00
Invalid fund, for amount due by that account.	196 28
New York and Maryland Iron and Coal company, due by them.	13,627 59
Stock in the Pittsburg and Connellsville railroad co. for instalment paid.	1,750 00
Cash in the hands of officers.	15,094 63
Cash on hand.	58,868 71
	\$12,104,330 07
Ca.	
Loan at six per cent.	\$1,000,000 00
Loan No. 2, at six per cent.	6,984 00
Stock.	7,000,000 00
Baring, Brothers & Co., London, for balance now due.	183,708 95
State of Maryland five per cent. sterling bonds.	3,900,000 00
Forfeited stock, for balance of that account.	183 45
Interest received on city stock.	1,170 66
Revenue, for balance of this account on 1st October 1845.	\$581,767 21
Amount accrued since.	895,315 23
Dividend from Washington road in April last.	25,815 00
	\$1,502,897 43
Less expenses, repairs and interest, including the sum of \$206,312 06 expended for reconstruction, locomotives, improvement at depots, and various purposes on account of construction.	710,614 41
	792,283 02
	\$12,104,330 07

STATEMENT B.

Revenue and Expenses of the Main Stem.

The amount received for the transportation of passengers, mails and merchandize, for the year ending the 30th September, 1846, has been.		\$838,375 39
And the amount from the coal trade, inclusive of a debt of \$13,627 69 due by the New York and Maryland Iron and Coal company, is.		56,990 23
Making an aggregate of.		\$895,315 23
And the expenses for the same period have been the following, viz:		
Expenses of transportation, including fuel, salaries of the superintendent, agents, conductors, etc.	\$146,057 91	
Repairs of the road.	116,163 49	
Repairs of locomotives.	56,051 17	
Repairs of passenger cars.	18,682 48	
Repairs of burden cars.	29,950 66	
Repairs of bridges.	58,139 73	
Repairs of depots.	10,742 71	
Repairs of water stations.	2,119 76	
Watching bridges and pumping water at water stations.	9,575 81	
Office and incidental expenses, including salaries, house rent, fees to counsel, etc.	7,356 16	
Making an aggregate of expenses of.		454,839 89
And showing the net earnings of the road to be.		\$440,475 34





## STATEMENT F.

Statement of the Revenue and Expenses of the Washington Branch of the Baltimore and Ohio Railroad for the year ending the 30th September, 1846.

The amount received for the transportation of passengers and merchandize for the year ending the 30th September, 1846.....\$225,559 61

And the expenses for the same period have been as follows, viz:

Bonus to the State, one-fifth of the receipts from passengers.....\$42,402 60

Expenses of transportation, including fuel, salaries of the superintendent, agents, conductors, etc.....26,546 59

Repairs of the road.....18,045 95

Repairs of locomotives.....12,106 11

Repairs of passenger cars.....13,207 71

Repairs of burden cars.....7,024 70

Repairs of depots.....975 02

Repairs of water stations.....165 85

Repairs of bridges.....1,763 21

For construction of passenger cars.....4,000 00

Office and incidental expenses—including salaries, house-rent, etc.....4,864 01

Interest on the Elk Ridge land-annuity.....1,250 00

Right of way and damages.....271 00

—131,622 75

Showing the net earnings of the road to be \$93,936 86

Office of the Balt. & Ohio R. R. Co. }

October 1st, 1846. }

J. I. ATKINSON, Secretary.

## Cincinnati, Dayton and Hamilton Railroad.

At a late meeting of the board of Directors of the Cincinnati, Hamilton and Dayton railroad company the survey and final location of the road from this city to Hamilton, was submitted preparatory to putting the line under contract. The company intend if possible, to have the grading completed this year, so as to have the road ready for the superstructure early next season. This is an important improvement, and must be greatly beneficial to Cincinnati, says the Gazette. Meetings have been held at Richmond and elsewhere, to take steps to extend the line from Hamilton, on towards Indianapolis, to form a link in the proposed road from Cincinnati to St. Louis. Those feeling an interest in this enterprise, who have not yet taken any of the stock, would do well to subscribe without further delay.

## ITEMS.

**A New Destructive.**—We understand from a gentleman who has recently returned from Washington, that the government has just concluded a negotiation for the purchase of a most formidable weapon of destruction, in the shape of a rocket, which can be impelled by one man, and yet will destroy life and property at a distance of two miles. This weapon was invented by an Englishman and offered to the government, but not adopted by them, when an American saw its destructive properties, and purchased the patent right for £1000. He then returned to the United States, and offered it to the war department, and after it had been subjected to experiments in presence of all the distinguished military and naval officers, it was approved of and purchased for \$20,000. A company of artillerymen are to be drilled expressly to the use of this weapon and despatched to the seat of war forthwith.

**Canal Trade.**—Ninety boats laden with the produce of Pennsylvania entered the Tide Water canal for Havre de Grace during the first week of navigation.

**Ship Building on the Ohio.**—A letter from Marietta describes the launch of another full rigged barque at that place. She is about 300 tons burthen; length on deck 104 feet, depth of hold 12 feet, breadth of beam 24 ft. 3 in., draws 6 feet 6 inches forward, and 7 ft. 10 inches aft; her cabin containing 10 state rooms handsomely furnished. She is loading with corn at Portsmouth, Ohio, and will sail in a few days for Cork, Ireland. The Cincinnati Enquirer says that the two schooners recently built on the Ohio, the Grace Darling and Ohio, left that place last week, for Salem, Mass., freighted with western notions, viz: 508 barrels of pork, 503 barrels of beef, 1513 kegs and 200 barrels lard, 94 barrels flour, 60 bags and 26 barrels dried apples, 6 barrels peaches, 110 tons black walnut timber, 8543 staves, 16 dozen axe handles, 2000 locust trenails, 34 half-barrels beef, 75 kegs butter, 6 bags hickory nuts, 150 handspikes, 167 dozen belaying pins, 15 sacks feathers, 50 sacks corn, 12 boxes madder, and to top off with, 70 barrels whiskey. They will probably be about one month making the trip.

**Lake Superior.**—This immense inland ocean is 490 miles in length, and 1700 miles in circumference: being the largest body of fresh water on the globe. It contains many islands, one of them Isle Royale, is 100 miles in length, and 49 miles broad. Upwards of 30 rivers empty themselves into it, and one curious fact in relation to it is well ascertained, that the quantity of water discharged by the Sault Ste Marie, is not one-tenth what it receives from its tributary streams. Evaporation must, therefore, be the principal agent in keeping the lake down to its usual level. A survey for a canal at the Sault Ste Marie, on the British side, has been made by the Montreal Mining company. The distance is stated to be half a mile, and the fall 18 feet; the excavation mostly in sandstone. There is scarcely a doubt that this work will be speedily accomplished, for it will complete the chain of ship canals through Canada from tide water into the waters of lake Superior; and the projectors are in hopes that this canal when finished will enable them to command the increasing business on both sides of this great inland sea.

**Railway Dividends in France.**—The dividend of the Paris and Rouen railway company, fixed by the recent general meeting at 25 fr. per share, is advertised to be paid on and after the 10th inst. The interest of 4 per cent., or 20 fr. per share, in the Rouen and Havre railway, is also advertised to be paid on and after the 11th inst. There are at present opened in this country, 1435 kilometres of railway; and 529 kilometres additional may be brought into circulation in the course of the present year. The first railways ever made in France were in connection with coal mines; and the railways, either exclusively or principally devoted to the conveyance of coal, are even now of no inconsiderable length. They are as follows:—the railway from St. Etienne to the Loire, 21 kils., from St. Etienne to Lyons, 60 kils.; from Montbrison to Montbrison, 16 kils.; from Epinac

to the Canal de Bourgogne, 28 kils.; from Densin to Abseon, 14 kils.; the railway du Gard, and de la Grand Combe, 86 kils.

**Arnoux Railway.**—A recent number of the Mining Journal contained a favorable notice of the little railway from Paris to Sceaux, constructed on M. Arnoux's principle of extraordinary sharp curves. The tiny line is certainly a curiosity in railways. It twists and twines about like a serpent; and at one of the stations the curve is so sharp, that the people on the locomotive might almost shake hands with those in the last carriage. It ascends, too, by means of these twistings and turnings, a very steep hill—a feat perfectly impossible to an ordinary railway; but M. Arnoux's system has two immense drawbacks, which will alone suffice to prevent it from coming into general use.—The first is, that the rate of travelling upon his railway is extraordinarily slow—scarcely quicker than an ordinary stage coach. It takes positively about 25 minutes to go from Paris to Sceaux, although the distance is not greater than 6 English miles. Such a rate of speed will certainly not satisfy the travelling public in this go-a-head age. The next objection is, that not more than six or eight carriages can be employed in a train. If there were more than eight, the last carriages in the train would be in danger of being thrown over at the curves, from the simple fact, that they would be running in one direction, whilst the locomotive would be pulling in another. This objection was pointed out by scientific men, before the opening of the line; but M. Arnoux denied its force, alleging that the principle upon which his wheels are constructed, and which makes part of his plan, obviated it. But he has since been compelled virtually to admit its truth, by never allowing more than a train of eight carriages (the locomotive has no tender) to travel on the line. Notwithstanding these objections, however, there is no doubt that M. Arnoux's system might be adopted with great advantage in mountainous or even hilly countries.

## RIDING PRIVILEGE ON RAILROADS.

A correspondent, in yesterday's American, has called public attention to the resolutions which lately passed the first branch of the city council, to confine the privilege of gratuitous riding in the railroad cars to the directors alone, and the amendment adopted in the second branch, extending it to the families of directors—and we are glad to see that the American's correspondent recommends the resolution without the proposed amendment, as we think the privilege, if confined to the director alone, would afford him a handsome compensation for his services, if he lives on the line of the road. We will speak particularly of the Baltimore and Susquehanna railroad, with which we are familiar. The charge of travel along the line from Baltimore to York, varies from 12½ cts. to \$1 50, according to distance. A director living six or seven miles from town, and going and coming daily, will save \$124 80 per annum, supposing him to travel 312 days in the year—farther from the city he would



save from fifty cents to one dollar per day, or from \$156 to \$312 per year. If half this sum be added for the passage of members of his family, it will be seen that his becoming a director is of some importance to his interests. We think it perfectly correct that the director shall travel free of cost himself, so long as he is paid nothing for his services; but we have uniformly been of opinion that the privilege should not be extended farther, because it is liable to be greatly abused. We do not believe that any of the directors on this road sought their appointments with views to the benefits of gratuitous riding, because but one of them resides on the road, and he seldom visits the city excepting in the discharge of his duty as a director.

While on the subject of railroad management, we will again suggest the propriety of adopting the system in operation elsewhere, of selling tickets for the season, or in quantities, at a reduced price, to way passengers. Experience has demonstrated that it increases the number of passengers, and adds to the revenue of the company. We hope that the directors of the several railroads will take this subject into consideration, as we are convinced that proper investigation will show them the propriety of adopting the course we have suggested.—*Balt. Clipper.*

#### BOUND VOLUMES.

Volumes of this Journal, for the Years 1838 to 1840, INCLUSIVE, may be had Bound, at Subscription Price, on application at this Office.

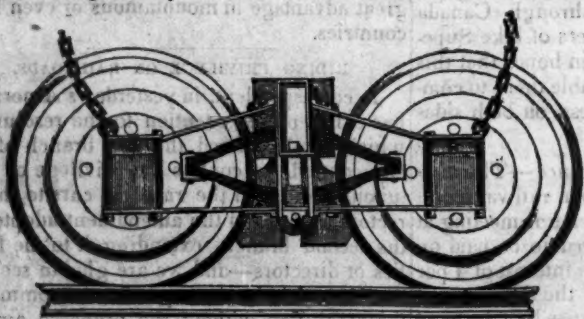
#### MISSING NUMBERS

##### OF THE RAILROAD JOURNAL.

Subscribers, who wish to obtain Missing Numbers of Back Volumes of this Journal, will do well to apply immediately.

One or two COMPLETE SETS of the RAILROAD JOURNAL may be had in a few weeks—or as soon as two numbers can be reprinted—by application to the Editor.

**RAY'S EQUALIZING RAILWAY TRUCK.—THE SUBSCRIBER** having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East

**RAILROAD IRON.—THE NEW JERSEY** Iron Company, Boonton, N. J., are now preparing to make Railroad Bars, and are ready to take orders or make contracts for Rails, deliverable after the first of December next. Apply to

FULLER & BROWN, Agent,  
No. 139 Greenwich, corner of Cedar street.  
September 18, 1846. 10:39

**LAWRENCE'S ROSENDALE HYDRAULIC** Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors, and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight paper-barrels, by JOHN W. LAWRENCE,  
142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 321

**ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—** for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,

75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.			HEMPEN ROPES.			CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.	Circumference of rope.	Weight per fathom.	Weight per fathom.	Diameter of iron.	Tons.	
	INCH.	LBS. OZ.	INCH.	LBS. OZ.	LBS.	INCH.		
11	4 1/4	13 5	10	24 -	50	15-16	20	
13	3 1/4	8 3	8 1/4	16 -	27	11-16	13 1/4	
14	3 1/4	6 11	7 1/4	12 8	17	9-16	10 1/4	
15	2 1/2	5 2	6 1/4	9 4	13 1/2	1-2	7 1/2	
16	2 1/4	4 3	6	8 8	10 1/2	7-16	7	

N.B. The working load, with a perpendicular lift, may be taken at 6 cwt. for every lb. weight per fathom, so that a rope weighing 5 lbs. per fathom would safely lift 3360 lbs., and so on in proportion. 1y24

river, (of which firm the subscriber was late a partner) under the immediate supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846.

W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co. have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the best and most economical truck now in use.

[Signed,]

WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845.

[Signed,] G. A. NICOLL,

Sup't Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use.

[Signed,] T. L. SMITH,

Jersey City, November 4, 1845.

N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car. For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot,

[Signed,] JOHN LEACH,

Jamaica November 12, 1845. }

1y19 Sup't Motive Power.



**RICH & CO'S IMPROVED PATENT SALAMANDER SAFES.**

Warranted free from dampness, as well as fire and thief proof.

Particular attention is invited to the following certificates, which speak for themselves:

**TEST No. 10.**

*Certificate from Mr. Silas C. Field, of Vicksburg, Mississippi.*

On the morning of the 14th ult., the store owned and occupied by me in this city, was, with its contents, entirely consumed by fire. My stock of goods consisted of oil, rosin, lard, pork, sugar, molasses, liquors, and other articles of a combustible nature, in the midst of which was one of Rich's Improved Patent Salamander Safes, which I purchased last October of Mr. Isaac Bridge, New Orleans, and which contained my books and papers. This safe was red hot, and did not cool sufficiently to be opened until 16 hours after it was taken from the ruins. At the expiration of that time it was unlocked, when its contents proved to be entirely uninjured, and not even discolored. I deem this test sufficient to show that the high reputation enjoyed by Rich's Safes is well merited.

S. C. FIELD.

**TEST No. 11.—Certificate.**

By the fire which occurred in this village on the 27th July last, our Law Office, together with many other buildings, was destroyed—we had in our office one of Rich's Improved Patent Salamander Safes, which, though heated red hot, preserved, without being the least damaged, many papers valuable to our clients—the envelopes of a few papers being slightly scorched. Some twenty-four hours after the fire, the safe was removed, and so hot was it, that several hours were required for it to cool off. Our office was in the second story of a large brick building, all the wood used in construction of said house being pitch pine. While the safe was red hot, one of the walls tumbled in, and so injured the lock that it was necessary to break the door open: From this test, we feel no hesitancy in recommending "Rich's Patent Salamander Safe" as entirely fire proof.

GOREE & KING.

Marion, Ala., Sept. 15th, 1846.

*Still other Tests in the Great Fire of July 19, 1845.*

The undersigned purchased of A. S. Martin, No. 138½ Water street, one of Rich's Improved Patent Salamander Safes, which was in our store, No. 54 Exchange place. The store was entirely consumed in the great conflagration on the morning of the 19th inst. The safe was taken from the ruins 52 hours after, and on opening it, the books and papers were found entirely uninjured by fire, and only slightly wet—the leather on some of the books was scorched by the extreme heat. RICHARDS & CRONKHITE.

Benton, Miss., December 27, 1845.

One of Rich's Improved Salamander Safes, which I purchased on the 2d of June last of A. S. Marvin, No. 138½ Water street, agent for the manufacturer, was exposed to the most intense heat during the late dreadful conflagration. The store which I occupied, No. 46 Broad street, was entirely consumed; the safe fell from the 2d story, about 15 feet, into the cellar, and remained there 14 hours, and when found, I am told, and from its appearance afterwards, should judge that it had been heated to a red heat. On opening it, the books and papers were found not to have been touched by fire. I deem this ordeal sufficient to confirm fully the reputation that Rich's safe has already obtained for preserving its contents against all hazards.

(Signed.)

WM. BLOODGOOD.

New York, 21st July, 1845.

Reference made to upwards of nine hundred and fifty merchants, cashiers, brokers, and officers of courts and counties, who have Rich's Safe's in use.

The above safes are finished in the neatest manner, and can be made to order at short notice, of any size and pattern, and fitted to contain plate, jewelry, etc. Prices from \$50 to \$500 each. For sale by

A. S. MARVIN, General Agent,

138½ Water st., N. Y.

Also by Isaac Bridge 76 Magazine street, New Orleans.

Also by Lewis M Hatch, 120 Meeting street Charleston, S. C.

46 11

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburg and Jackson Railroad, Vicksburg, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. M'Kee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hineley & Drury, Boston, will be promptly executed. FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844.

••• The letters in the figures refer to the article given in the Journal of June, 1844. ja45

**PATENT HAMMERED RAILROAD, SHIP**

and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 3 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.**

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

**Cotton, Wool and Flax Machinery**

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, ja45 Paterson, N. J., or 60 Wall street, N. York.

**PATENT RAILROAD, SHIP AND BOAT**

Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

••• Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**SPRING STEEL FOR LOCOMOTIVES,**

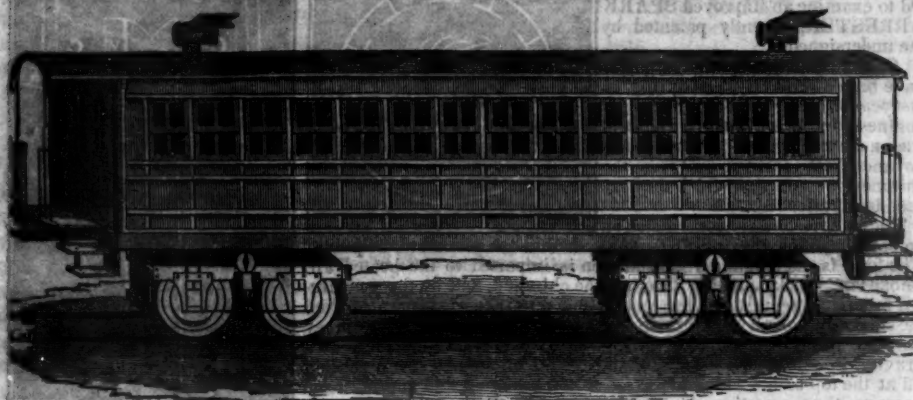
Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, Albany Iron and Nail Works,



## DAVENPORT & BRIDGES'

### CAR WORKS, CAMBRIDGEPORT, MASS.

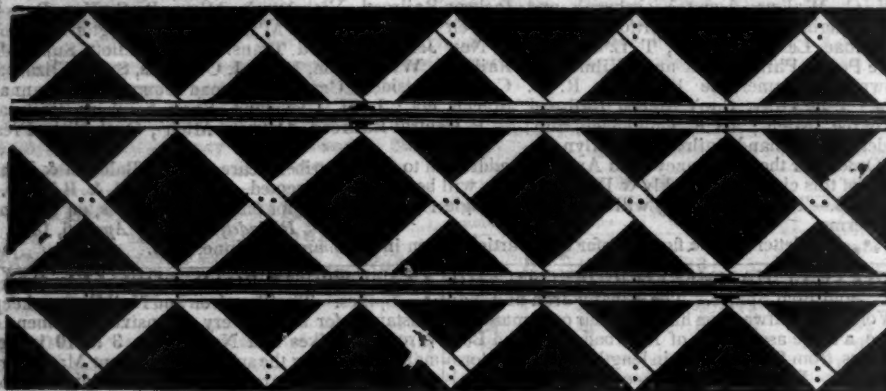


Manufacture to Order, Passenger and Freight Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes.

## THE HERRON RAILWAY TRACK,



As seen stripped of the top ballasting

A GOLD MEDAL AWARDED THE INVENTOR BY THE AMERICAN INSTITUTE.

**THE UNDERSIGNED RESPECTFULLY** invites the attention of Engineers, and Railroad Companies, to some highly important improvements he has recently made in the Herron system of Railway structure. These improvements enable him to effect a very large reduction in the quantity of Timber, and cost of construction, without impairing the strength of the Track, or its powers of resisting frost, while they secure additional features of excellence in the Drainage and facility of making Repairs.

The above cut represents the "Herron Track" as it is laid on the Philadelphia and Reading, and on the Baltimore and Susquehanna Railroads. The intersection of the sills of the trallis are 5 feet from centre to centre, while in the new construction they are only 2½ feet. This renders the string piece unnecessary, thus removing the only objectionable feature found in the Track.

The result of experience has proved that all Tracks constructed with longitudinal timbers, such as mud sills, and more especially, the continuous bearing string pieces retain the rain water that falls between the Rails, which, being thus confined, settles along those timbers, and accumulating in quantity flows rapidly along them on the descending grades, washing out the earth from under the timber, and frequently causing large breaches in the embankments of the road. Whereas all water intercepted by the oblique sills of the trallis, is discharged immediately into the side ditches.

In the 5 foot plan, the Track occupies a Road bed nearly 11 feet wide, while the new construction takes

but 8 feet; the timber being more concentrated under the Rails. A block of hard wood, about 2 feet long and 15 inches wide, is introduced into a square of the trallis for the purpose of giving an additional, and effectual support to the joints of the Rails, which rest upon it. Should these joint blocks become chafed and worn by the working, and imbedding of the chairs, as is now the case on all Railroads, they can be readily replaced without any derangement of the timbers less liable to wear.

The following is a general estimate of its cost near the seaboard. In the interior it will be considerably less.

#### ESTIMATE OF THE PROBABLE COST OF ONE MILE.

4,224 Timbers, 11 ft. long, 3 x 6 inches =	
68,696 ft. b.m., at \$10 =	\$686 96
587 Oak joint blocks 2 ft. x 3 x 15 in. =	
4,403 ft. b.m., at \$13 =	57 24
13,000 Spikes = 2,250 lbs. at 4½ cts. =	101 25
Workmanship free of patent charge =	600 00

Cost of one mile including the laying of the Rail.....\$1,445 45

He has made other important improvements, which will be shown in properly proportioned models, that give a much better idea of the great strength of the Track than a drawing will do.

Sales of the Patent right to all the distant States will be made on liberal terms.

**JAMES HERRON.**

Civil Engineer and Patentee.

No. 277 South Tenth St., Philadelphia. 33f

## FRANKLIN HOUSE,

No. 105 Chestnut Street, Philadelphia.

The undersigned takes the liberty of calling the attention of the readers of the Journal to the fact that the Office is removed from New York to the FRANKLIN HOUSE, Philadelphia, where he will be always pleased to meet and greet them. They will not only find a pleasant Reading Room, with lots of foreign periodicals, treating of Railroads and Machinery, but they will always find good-sized and airy rooms—clean beds—and a well supplied table. If they would have further proof of this, they have only to call, and judge for themselves, and much oblige the proprietor,  
**D. K. MINOR.**

## ENGINEERS' AND SURVEYERS'

## INSTRUMENTS MADE BY

**EDMUND DRAPER,**

Surviving partner of

**STANCLIFFE & DRAPER.**



No 23 Pear street,  
ly10 near Third,

below Walnut,  
Philadelphia.

## LAP-WELDED WROUGHT IRON TUBES

FOR

## TUBULAR BOILERS,

FROM 1 1-4 TO 6 INCHES DIAMETER,  
and

ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

**THOMAS PROSSER,**

Patentee.

ly25

28 Platt street, New York.

## RAILROAD IRON.

## MOUNT SAVAGE IRON WORKS

THIS Company are prepared to execute orders for RAILROAD IRON, of any pattern, and equal in point of quality to any other manufactured.

Address

**J. M. HOWE,**

Pres't. Mt. Savage Iron Works,

Dec. 25, ly\*

Maryland.

## ENGINEERS and MACHINISTS.

**THOMAS PROSSER,** 28 Platt St. N. Y. (See Adv.)

**J. F. WINSLOW,** Albany Iron and Nail Works Troy, N. Y. (See Adv.)

**TROY IRON AND NAIL FACTORY,** H. Burden, Agent. (See Adv.)

**ROGERS, KETCHUM & GROSVENOR,** Paterson, N. J. (See Adv.)

**S. VAIL,** Speedwell Iron Works, near Morristown, N. J. (See Adv.)

**NORRIS, BROTHERS,** Philadelphia Pa. (See Adv.)

**FRENCH & BAIRD,** Philadelphia. (See Adv.)

**NEWCASTLE MANUFACTURING COMPANY,** Newcastle, Del. (See Adv.)

**ROSS WINANS,** Baltimore, Md.

**CYRUS ALGER & Co.,** South Boston Iron Co.

**SETH ADAMS,** Engineer, South Boston.

**STILLMAN, ALLEN & Co.,** N. Y.

**JAS. P. ALLAIRE,** N. Y.

**PHENIX FOUNDRY,** N. Y.

**ANDREW MENEELY,** West Troy.

**JOHN F. STARR,** Philadelphia, Pa.

**MERRICK & TOWNE,** do.

**HINCKLEY & DRURY,** Boston.

**C. C. ALGER,** Stockbridge Iron Works Stockbridge, Mass.